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Indian Standard

SPECIFICATION FOR
TOWING JAW FOR USE BETWEEN TRAILERS
OF UP TO 16 TONNES GROSS MASS AND
TRANSPORT TRACTOR

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INDIAN STANDARDS INSTITUTION
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

Indian Standard

SPECIFICATION FOR TOWING JAW FOR USE BETWEEN TRAILERS OF UP TO 16 TONNES GROSS MASS AND TRANSPORT TRACTOR

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(Continued from page 1)

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SPECIFICATION FOR TOWING JAW FOR USE BETWEEN TRAILERS OF UP TO 16 TONNES GROSS MASS AND TRANSPORT TRACTOR

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 31 December 1976, after the draft finalized by the Transport Tractors and Trailers Sectional Committee had been approved by the Marine, Cargo Movement and Packaging Division Council.

0.2 The requirements of this standard, which relate only to vehicles used on the public highways, are intended to ensure the maximum degree of compatibility between commercial and government department standards.

0.3 Towing jaws may be forged or cast.

0.4 The material specifications are for the minimum qualities acceptable, and do not exclude the use of other materials provided that these are at least equal in quality so that road safety is not impaired.

0.5 This standard should be used in conjunction with IS : 8274-1976*. The jaw has been designed to accommodate a drawbar eye of 51 mm internal diameter and 40 mm stock or 76 mm internal diameter and 40 mm stock.

0.6 The standard applies to connections to trailers of up to 16 tonnes gross mass. The specification for a towing jaws for connections to trailer of up to 35 tonnes gross mass is given in IS : 8296-1976† and for trailers of up to 5 tonnes gross mass is given in IS : 8298-1976‡.

0.7 In the preparation of this standard, considerable assistance has been derived from BS AU 26 : 1964 'Specification for towing jaw for use between trailers of 5-16 tonnes gross weight and towing vehicle', issued by the British Standards Institution.

*Specification for draw bar eyes and forecarriage pins for connection between trailers of gross mass above 5 and up to 35 tonnes and transport tractor.

†Specification for towing jaw for use between trailers of up to 35 tonnes gross mass and transport tractor.

‡Specification for towing jaw for use between trailers of up to 5 tonnes gross mass and transport tractor.

1. SCOPE

1.1 This standard specifies the basic dimensions and quality of materials for a towing jaw and its mountings, for use in connection between a transport tractor and a trailer of up to 16 tonnes gross mass.

1.2 The gross mass refers to gross laden train masses where more than one trailer is drawn.

2. MATERIALS

2.1 The jaw shall be made from a material of quality not less than Grade C20 of IS : 1875-1971* for steel in normalized condition for the forged jaw and Grade 23-45 of IS : 1030-1974† for the cast jaw.

2.2 The towing pin shall be made from a material of quality not less than Grade 35Mn2Mo 28 steel of IS : 5517-1969‡.

3. DIMENSIONS

3.1 Dimensions shall be as shown in Fig. 1. The dimensions marked with asterisk (*) are essential for interchangeability, other dimensions apply to the forged jaw and are for guidance only.

NOTE—The dimensions specified for the forged jaws have been calculated on the basis of the total yield strength being not less than two-thirds the gross mass being towed. It is necessary that any other part not covered by this standard, connecting the coupling to the towing tractor shall have a similar strength.

4. DESIGN

4.1 An efficient safety locking device shall be provided as indicated in Fig. 1 to prevent accidental extraction of the towing pin from the jaw.

4.2 The jaw shall be so designed that a bar of 44 mm diameter shall pass freely between the pin and the inside face of the jaw (*see* Fig. 1).

5. MOUNTING

5.1 The jaw shall be mounted with four bolts of 16 mm diameter conforming to designation M 16 × 1·5 (P) of IS : 1364-1967§ at 100·0 × 100·0 mm centres. This renders it interchangeable in mounting with hooks specified in IS : 8299-1976|| and IS : 8300-1976¶.

*Specification for carbon steel billets, blooms, slabs and bars for forgings (*third revision*).

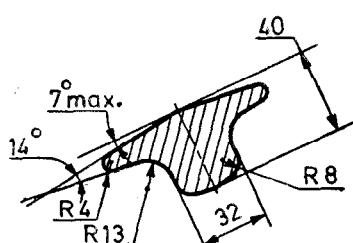
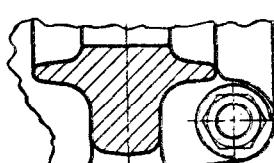
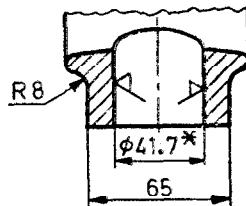
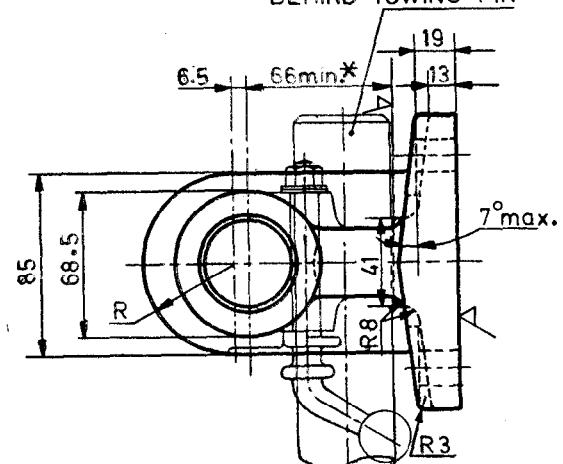
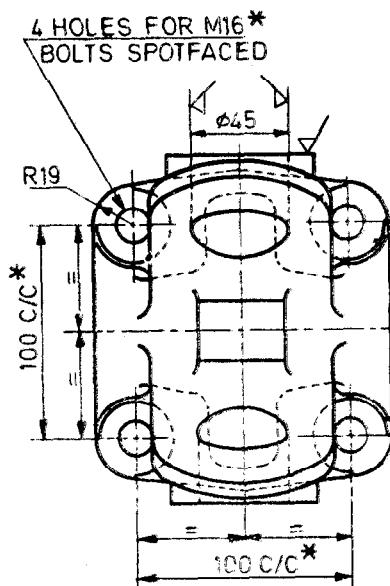
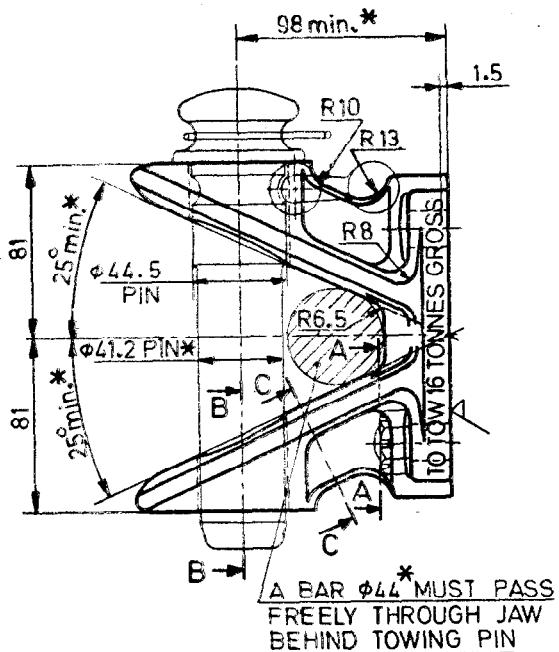
†Specification for carbon steel castings for general engineering purposes (*second revision*).

‡Specification for steel for hardening and tempering.

§Precision and semi-precision hexagon bolts, screws, nuts and lock nuts (dia range 6 to 39 mm) (*first revision*).

||Specification for towing hook for use between trailers of up to 16 tonnes gross mass and transport tractor.

¶Specification for towing hook for use between trailers of up to 35 tonnes gross mass and transport tractor.



*ESSENTIAL DIMENSIONS

SECTION CC

All dimensions in millimetres.

FIG. 1 TOWING JAW FOR TRAILERS UP TO 16 TONNES

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5.2 The nuts shall be secured either by peening the end of the bolt or by fitting a positive locking device such as a safe locking nut or a slotted nut and split pin.

6. MARKING

6.1 The following wording, in clear lettering 10 mm high, raised or stamped, shall be marked on each towing jaw:

- a) ' TO TOW 16 TONNES GROSS ' on one side, and
- b) ' IS : 8297-1976 ' on the other side.

6.2 In addition, the towing jaws shall also be marked at the appropriate place, the following information:

- a) Name or trade-mark of the manufacturer,
- b) Date or year of manufacture, and
- c) The country of manufacture.

6.2.1 The towing jaw may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

INDIAN STANDARDS
ON
TRANSPORT TRACTORS AND TRAILERS

IS:

- 6763 (Part I)-1972 Specification for fifth wheel king pins for trailers: Part I 50.8 mm diameter
- 6763 (Part II)-1976 Specification for fifth wheel king pins for trailers: Part II 89 mm diameter
- 7774 (Part I)-1975 Glossary of terms relating to transport tractors and trailers: Part I Basic terms
- 7774 (Part II)-1975 Glossary of terms relating to transport tractors and trailers: Part II Dimensions and weights
- 8007-1976 Dimension of fifth wheel coupling between transport tractors and semi/articulated trailers for interchangeability
- 8037-1976 General requirements for transport tractor-trailers
- 8274-1976 Specification for drawbar eyes and forecarriage pins for connection between trailers of gross mass above 5 and up to 35 tonnes and transport tractor
- 8296-1976 Specification for towing jaw for use between trailers of up to 35 tonnes gross mass and transport tractor
- 8297-1976 Specification for towing jaw for use between trailers of up to 16 tonnes gross mass and transport tractor
- 8298-1976 Specification for towing jaw for use between trailers of up to 5 tonnes gross mass and transport tractor
- 8299-1976 Specification for towing hook for use between trailers of up to 16 tonnes gross mass and transport tractor
- 8300-1976 Specification for towing hook for use between trailers of up to 35 tonnes gross mass and transport tractor

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INDIAN STANDARDS INSTITUTION

Manak Bhavan, 9 Bahadur Shah Zafar Marg, NEW DELHI 110002

Telephone : 27 01 31 (20 lines)

Telegrams : Manaksanstha

Telephone

Regional Offices:

Western : Novelty Chambers, Grant Road
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